a valve spool, fitted into said valve body so as to be changeable in relative angle, said valve spool including a plurality of valve spool lands;

wherein only one of said valve body and said valve spool includes pairs of chamfers which are so formed that each of ones of the valve body lands and the valve spool lands has only one chamfer.

Claim 30. The hydraulic control valve according to claim 29, wherein the pairs of chamfers are on all of the valve spool lands.

Claim 34. The hydraulic control valve according to claim 29, wherein said valve body includes a plurality of first oil grooves formed between said valve body lands.

Claim 35. The hydraulic control valve according to claim 34, wherein said valve spool includes a plurality of second oil grooves formed between said valve spool lands.

Claim 38. The hydraulic control valve according to claim 29, wherein chamfers adjust a throttle area.

Claim 39. A power steering apparatus, comprising:

a hydraulic pump, being driven by an electric motor for supplying oil pressure to a hydraulic cylinder for steering assistance; and

a hydraulic control valve; interposed in a hydraulic pressure path between said hydraulic pump and hydraulic cylinder, for controlling oil pressure from said hydraulic pump to two cylinder chambers included in said hydraulic cylinder, said hydraulic control valve comprising:

a valve body, including a plurality of valve body lands; and a valve spool, fitted into said valve body so as to be changeable in relative angle, said valve spool including a plurality of valve spool lands;

wherein only one of said valve body and said valve spool includes pairs of chamfers which are so formed that each of ones of the valve body lands and the valve spool lands has only one chamfer.

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Please add the following claims.

--Claim 74. The power steering apparatus according to claim 39, wherein the pairs of chamfers are on all of the valve spool lands.

Claim 75. The power steering apparatus according to claim 39, wherein said hydraulic pump is driven such that a flow rate becomes low flow rate or zero flow rate when steering is not carried out, and such that the flow rate becomes high in accordance with steering angular velocity when steering is carried out, and

said valve body includes a plurality of first oil grooves formed between said valve body lands.

Claim 76. The power steering apparatus according to claim 75, wherein said valve spool includes a plurality of second oil grooves formed between said valve spool lands.

Claim 77. The power steering apparatus according to claim 76, wherein gaps between said first and second oil grooves, which are adjacent in the peripheral direction act as throttle portions which change throttle areas in accordance with a relative angular displacement between said valve body and valve spool.

Claim 78. The power steering apparatus according to claim 76, wherein ones of said first and second oil grooves alternately act as oil supply chambers and oil discharge chambers, and the others of said first and second oil grooves acting as oil feed chambers interposed between said oil supply chambers and oil discharge chambers.

Claim 79. The power steering apparatus according to claim 39, wherein said hydraulic pump is driven such that a flow rate becomes a low flow rate or zero flow rate when steering is not carried out, and such that the flow rate becomes high in accordance with steering angular velocity when steering is carried out, and chamfers adjust throttle area.

Claim 80. The power steering apparatus according to claim 39, wherein said electric motor drives said hydraulic pump such that oil pressure is supplied at zero flow rate or predetermined small flow rate as small as possible when steering is not carried out, and such that the oil pressure is abruptly supplied at high flow rate in accordance with the steering angular velocity at the steering is carried out, and

said valve body includes a plurality of first oil grooves formed between said valve body lands.

Claim 81. The power steering apparatus according to claim 80, wherein said valve spool includes a plurality of second oil grooves formed between said valve spool lands.

Claim 82. The power steering apparatus according to claim 81, wherein gaps between said first and second oil grooves, which are adjacent in the peripheral direction act as throttle portions which change throttle areas in accordance with a relative angular displacement between said valve body and valve spool.

Claim 83. The power steering apparatus according to claim 81, wherein ones of said first and second oil grooves alternately act as oil supply chambers and oil discharge chambers, and the others of said first and second oil grooves

acting as oil feed chambers interposed between said oil supply chambers and oil discharge chambers.

Claim 84. The power steering apparatus according to claim 39, wherein said electric motor drives said hydraulic pump such that oil pressure is supplied at zero flow rate or predetermined small flow rate as small as possible when steering is not carried out, and such that the oil pressure is abruptly supplied at high flow rate in accordance with the steering angular velocity at the steering is carried out, and chamfers adjust throttle area.--